

Abstract

To predict impending system failures, dummy messages are periodically transmitted from a surveillance computer via a message broker to a host computer that executes processes in response to electronic messages from terminals and returns an electronic message. The dummy electronic messages are time-stamped when transmitted from the surveillance computer, when received and transmitted by the message broker, and when a process is executed by the host. The surveillance computer predicts impending failures by comparing the time required while a transmitted dummy electronic message returns to the surveillance computer, a mean value of the required time, a time required while the dummy electronic message passes through the message broker, a mean value of the time for the passage, a time required for a dummy electronic message transmission between each computer and a mean value of the time for transmission to each base value.